

REMARKS

Claims 1 to 20 are pending in the application.

Claim Rejections - 35 U.S.C. 112

Claims 1-2, 4-5, 7 stand rejected under 35 U.S.C. 112, 1st paragraph, as failing to comply with the written description requirement.

Claims 1-2, 4-5, 7 stand rejected under 35 U.S.C. 112, 1st paragraph, because the claims refer to the protein only by function, i.e., there is lack of structure.

Examiner responded to the arguments presented by applicant in the last amendment that it is unclear in which one of the proteins (i.e., protein 1 or protein 2) the instant SEQ ID NO:2 is found and that therefore examiner believes that more structural information needs to be provided in claim 1. Examiner again suggested that the limitations of claim 3 be incorporated.

Applicant herewith submits a declaration signed by one of the co-inventors, Prof. Dirk Prüfer, in support of applicant's position that claim 1 as currently worded complies with the written description requirement and provides sufficient structure as set forth below.

Prof. Dirk Prüfer has been involved in forisome research since the year 2000. He is a co-author, for example, of "ATP-independent contractile proteins from plants" (Nature materials; 2003) cited by examiner in the office action dated 4/1/2009 and numerous other publications regarding forisomes (see e.g. the two publications mentioned in and submitted with the instant declaration).

As set forth in the attached declaration, SEQ ID NO:2 occurs in all P1 proteins (designation used in the instant application) of Fabaceae and P1 proteins are the proteins responsible for stopcock behavior. This SEQ ID NO:2 occurs exclusively in P1 ("first protein"). As evidence, the attached declaration contains a comparison chart of five sequences of P1 proteins of four different Fabaceae plants; these sequences are accessible through the U.S. NCBI gene database (the respective links are set forth in the declaration). The comparison chart of these sequences shows in the marked section that the SEQ ID NO:2 (EGFDIAFK) is found in all of the P1 proteins.

As to the designation of the P1 protein, it is respectfully submitted that the initial designation of P1, P2 etc. used in the specification was changed later in conformity with systematic standards and the two publications mentioned in the declaration illustrate the initial use of "for" ("For1") and the subsequent use of "SEO" for the protein P1 as the designation "for" was already assigned systematically to a different protein.

The sequences in the U.S. NCBI gene database therefore carry the name "...SEO..." for the protein P1.

In view of the fact that the SEQ ID NO:2 occurs inherently and exclusively in the P1 proteins of all Fabaceae, applicant respectfully submits that the language of claim 1 is definite because SEQ ID NO:2 is inherently contained in and occurs only in P1.

It is therefore respectfully submitted that, given the inherent and exclusive structural assignment of SEQ ID NO:2 to protein 1, claim 1 and its dependent claims comply with the written description requirement and also provide sufficient structure.

Claim 3 has been rewritten in independent form in view of examiner's remarks regarding the need for structural features; however, applicant is of the opinion that instant claim 1 in itself provides sufficient structural features as set forth above.

Claim 4 stands rejected as the limitations of "1 m" or "40 m" are not disclosed in the specification.

Claim 4 has been amended to set forth as disclosed in the specification " μm " instead of "m".

Claims 8-15 stand rejected under 35 U.S.C. 112, 2nd paragraph, as being indefinite because the claims are drawn to a protein of the protein crystalloid body and since it is not clear whether SEQ ID NO:1 and/ or SEQ ID NO:2 and/or SEQ ID NOs:3-5 are in protein 1 and/or protein 2 there is insufficient structure to distinguish between the first or second proteins.

Based on the declaration by Prof. Dirk Prüfer and the remarks presented above, claims 8-15 are definite as the correlation between SEQ ID NO:2 and P1 ("first protein")

is inherent and exclusive.

As the claims 8-15 depend from claim 2 and claim 2 defines the first and second proteins by their molecular weight, the weight range given in the claims 8-15, in turn, allow the correlation to the first and second proteins, respectively.

Reconsideration and withdrawal of the rejection of the claims under 35 USC 112 are respectfully requested.

ALLOWABLE SUBJECT MATTER

Claims 1 to 15 are free of prior art and should thus be allowed.

CONCLUSION

In view of the foregoing, it is submitted that this application is now in condition for allowance and such allowance is respectfully solicited.

Should the Examiner have any further objections or suggestions, the undersigned would appreciate a phone call or **e-mail** from the examiner to discuss appropriate amendments to place the application into condition for allowance.

Authorization is herewith given to charge any fees or any shortages in any fees required during prosecution of this application and not paid by other means to Patent and Trademark Office deposit account 50-1199.

Respectfully submitted on Oktober 8, 2010,

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Encl.: Declaration (2 pages, attachment); publications B. Müller et al.; G.A. Noll et al.